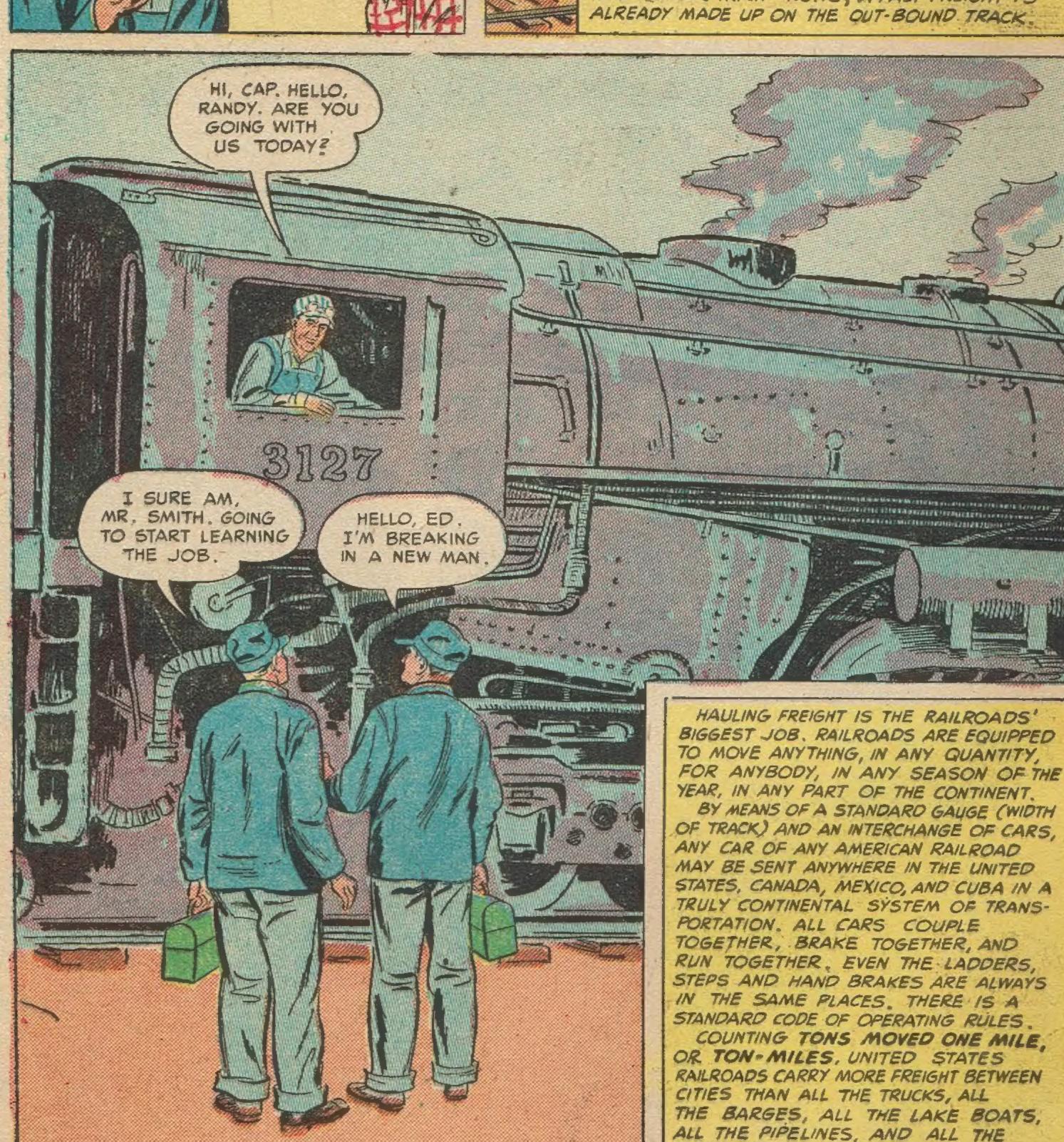
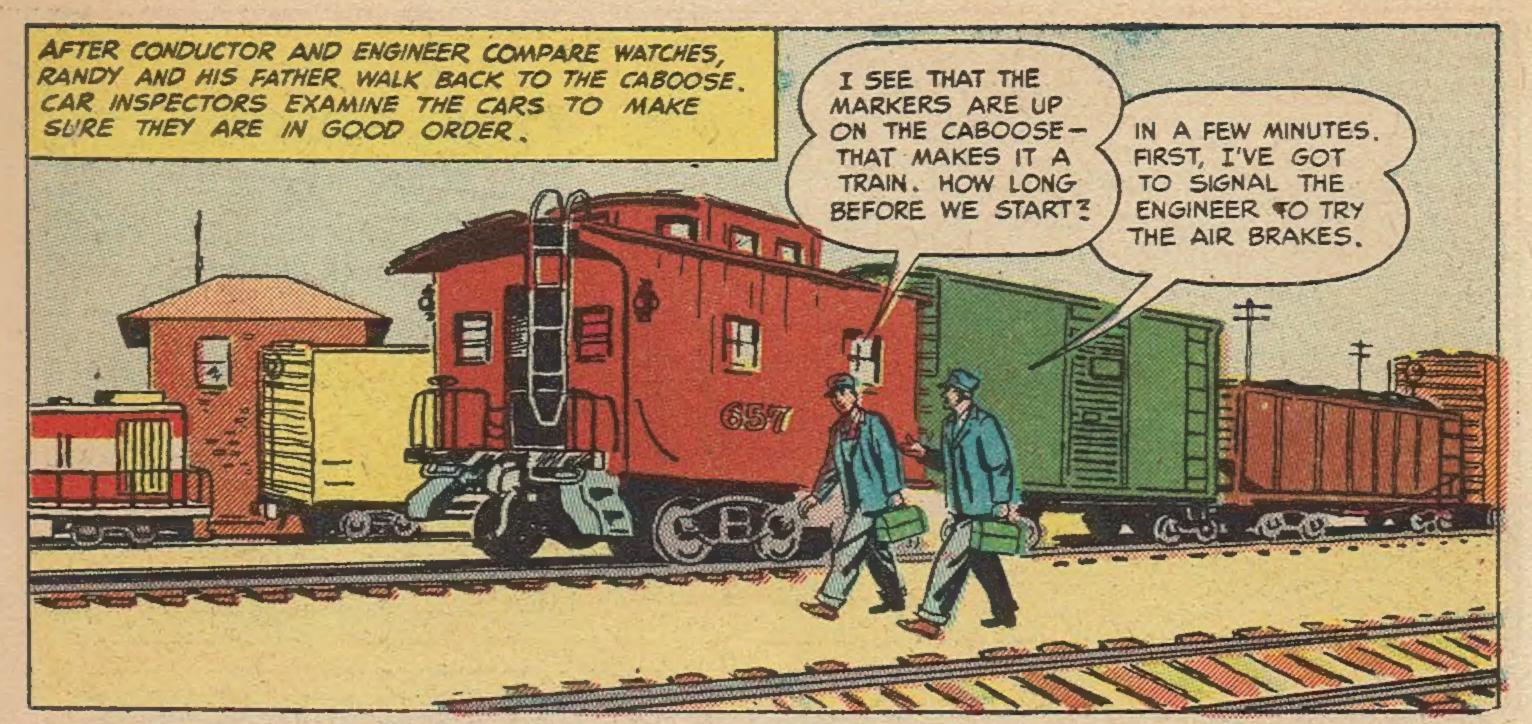


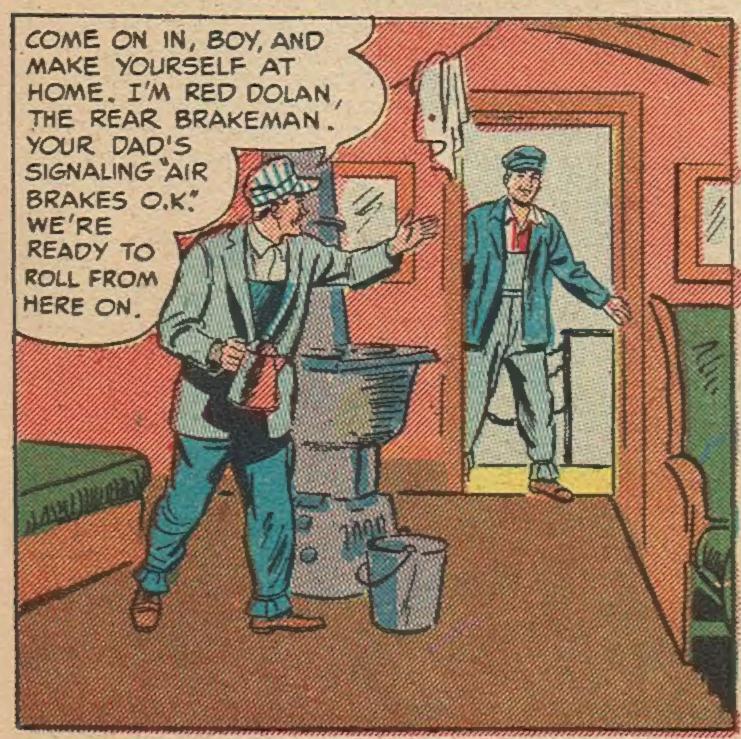
AIRPLANES -- MORE THAN ALL OF

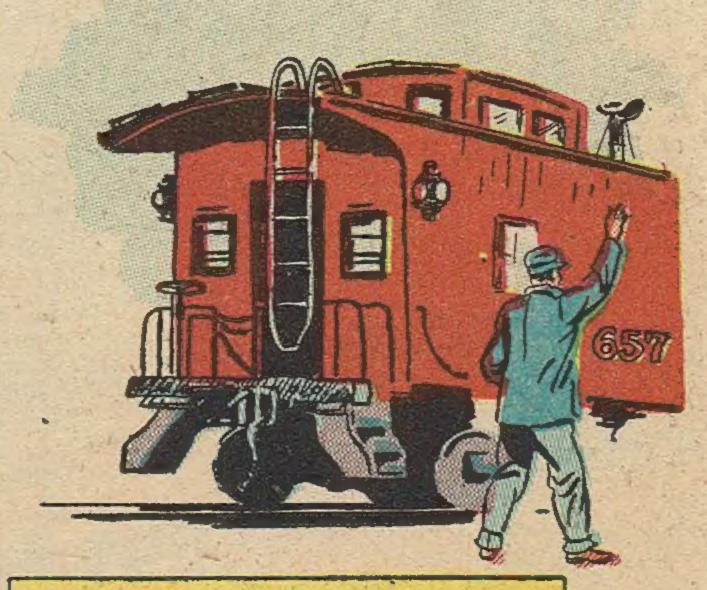
THEM COMBINED.



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CONDUCTOR DAVIS GIVES THE ENGINEER
THE "HIGHBALL" NO. 70 WITH 49 LOADS
AND II EMPTIES BEGINS TO MOVE.

THE TRAIN GETS THE CLEAR SIGNAL AT THE YARD EXIT AND IS SOON ROLLING UP THE MAINLINE.

BEHIND A BIG 4-8-4 — A LOCOMOTIVE WITH 4

LEADING TRUCKWHEELS, B DRIVING WHEELS, AND

4 TRAILING TRUCKWHEELS.









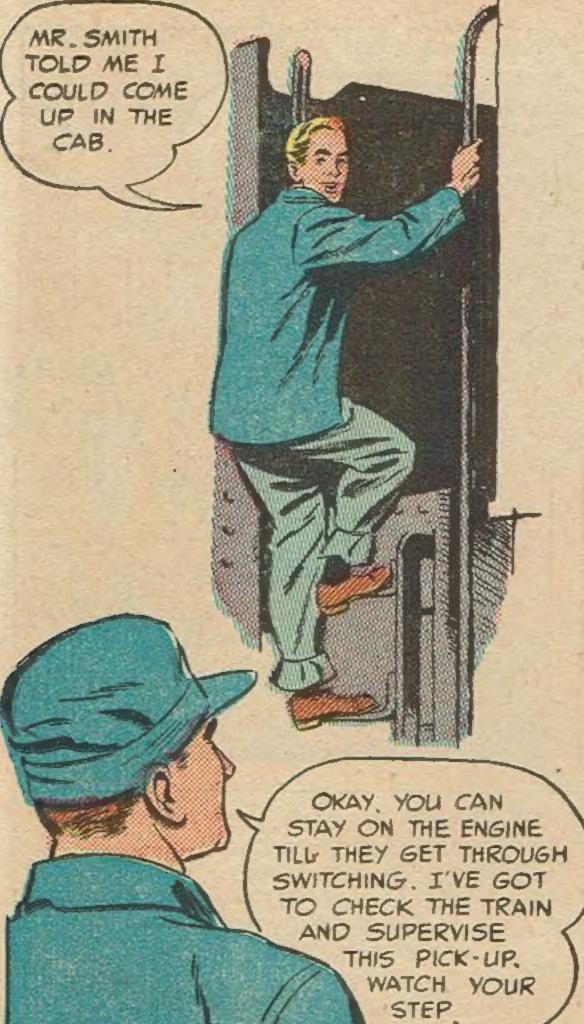


"LOCAL FREIGHTS STOP AT
ALL STATIONS AND SIDINGS
BETWEEN TERMINALS, TIME
FREIGHTS STOP AT LARGER
TOWNS, DISPATCH FREIGHTS
CARRY PERISHABLES AND
OTHER SHIPMENTS THAT
REQUIRE REGULAR MOVEMENTS ON FAST SCHEDULES.
MERCHANDISE FREIGHTS ALSO
RUN ON FAST SCHEDULES.
THEY HANDLE LESS-THANCARLOAD-LOT SHIPMENTS."

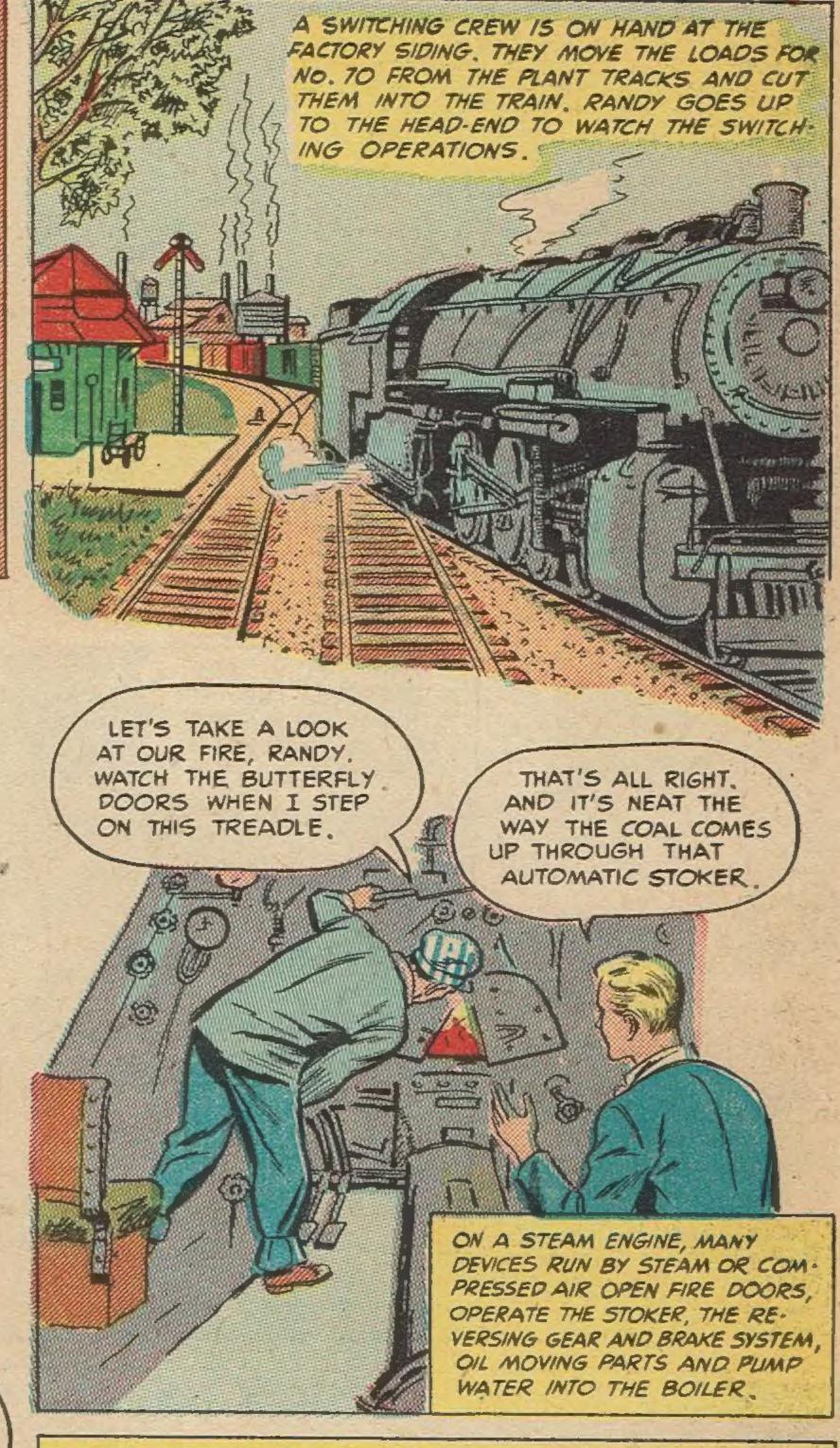




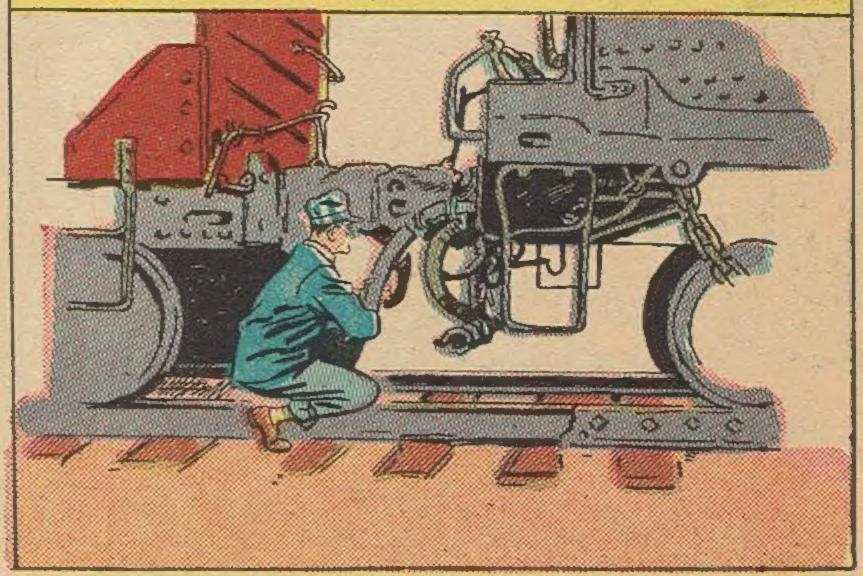




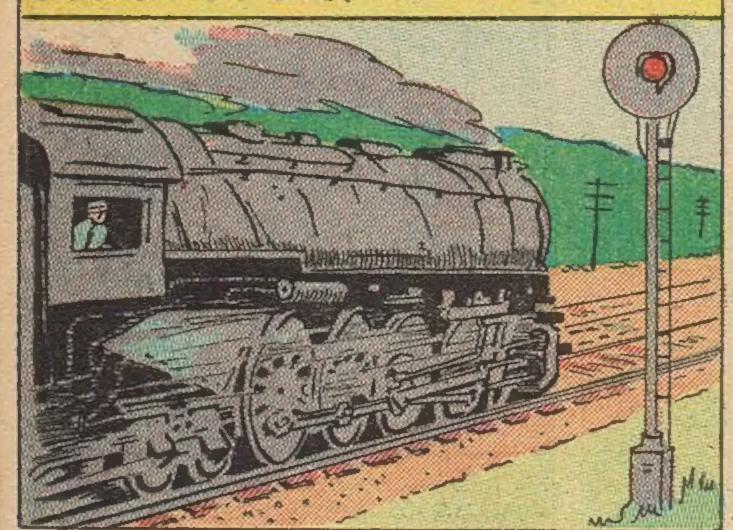
THE CAB OF A LOCOMOTIVE CONTAINS THE CONTROLS REQUIRED IN THE OPERATION OF THE ENGINE AND TRAIN—THE THROTTLE, THE AIR BRAKE-CONTROLS, THE SAND CONTROLS AND SEVERAL GAUGES AND INDICATORS WHICH TELL THE ENGINEER AND FIREMAN HOW WELL THE LOCOMOTIVE IS PERFORMING TO START A STEAM ENGINE, THE ENGINEER RELEASES THE AIR BRAKES AND PULLS THE THROTTLE SLOWLY TOWARD HIM. THIS LETS STEAM FROM THE BOILER INTO THE CYLINDERS AND MOVES THE PISTONS. PISTON-ROD, CROSS-MEAD, MAIN-ROD, AND SIDE-RODS ALSO MOVE, TURNING THE DRIVING WHEELS. LOCOMOTIVES ARE GREAT POWER PLANTS ON WHEELS.



SIX CARS ARE COUPLED INTO THE TRAIN. WHILE THE HEAD BRAKEMAN CONNECTS THE AIR LINE, THE CONDUCTOR GETS THE WAYBILLS FROM THE AGENT, HE CHECKS THE CARS AND THEY ARE READY TO ROLL AGAIN.

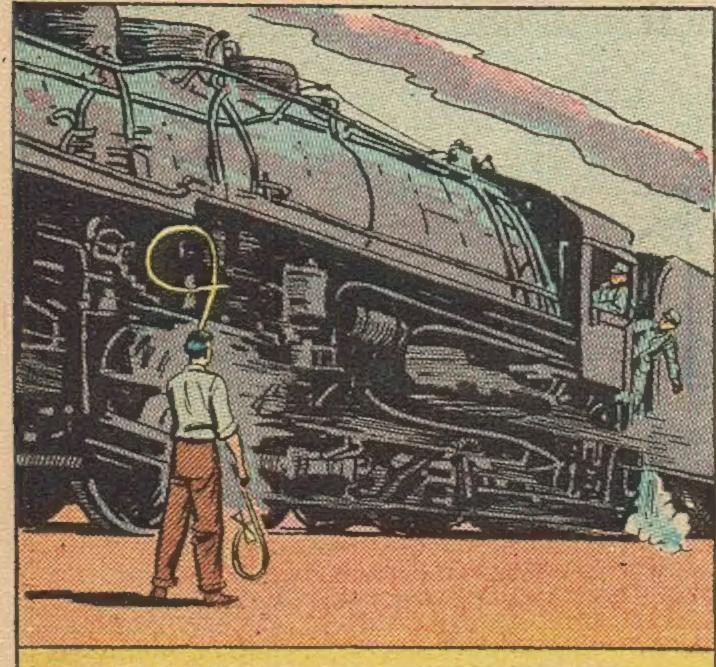


NO. TO, NOW HAULING SS LOADED CARS AND 11
EMPTIES, SPEEDS UP THE DOUBLE-TRACKED MAINLINE. DURING THE RUN, THE HEAD-END BRAKEMAN
RIDES IN THE ENGINE CAB TO KEEP SAFETY WATCH
OVER HEAD-END CARS.



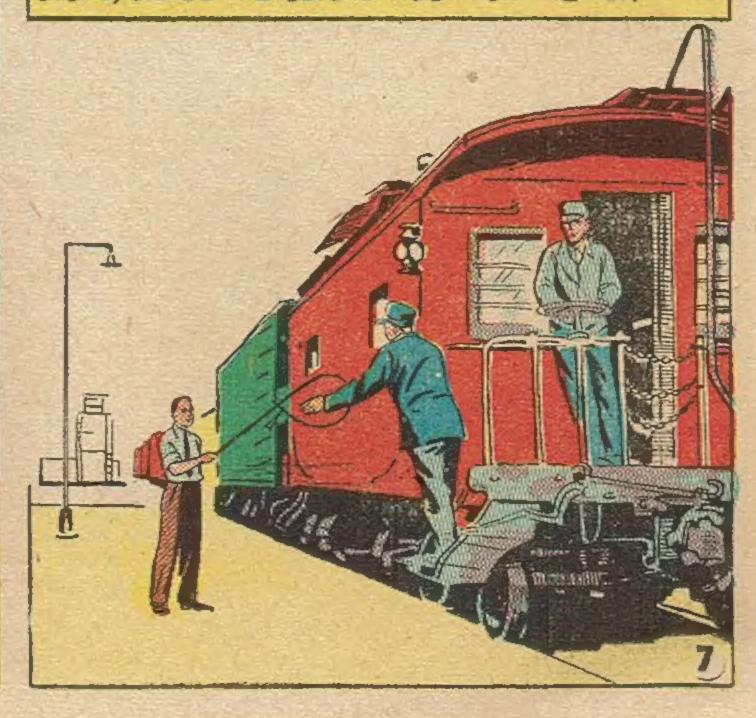






AS NO.70 PASSES THE NEXT STATION, THE OPERATOR "HANDS UP" ORDERS ON LARGE WOODEN HOOPS. A MEMBER OF THE ENGINE CREW CATCHES ONE HOOP...

... AND CONDUCTOR DAVIS, STANDING ON THE CABOOSE STEPS, GRABS THE SECOND HOOP "ON THE FLY."





SIGNALS AND COMMUNICATIONS
ARE THE EYES AND EARS OF
THE RAILROAD. MANY KINDS
ARE USED — EVERYTHING
FROM SIMPLE HAND, FLAG
AND LANTERN SIGNALS TO
AUTOMATIC ELECTRONIC
CONTROL. MESSAGES
ARE GIVEN BY TELEGRAPH,
TELEPHONES AND BLOCK
SIGNALS.



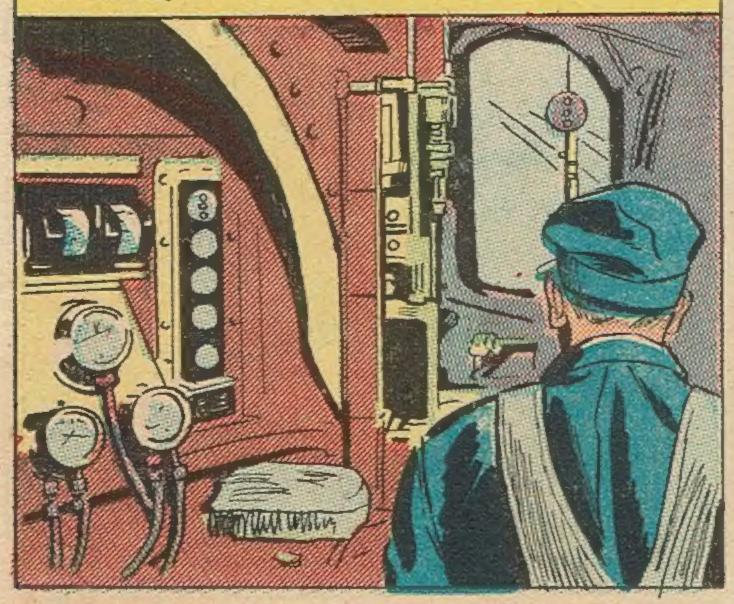
ON MANY RAILROADS, RADIO IS USED FOR COMMUNICATION BETWEEN MOVING TRAINS AND FIXED POINTS, AND FOR END TO END OF TRAINS, AND IN YARD SERVICE. MANY ROADS USE TWO-WAY, FREQUENCY MODULATION SPACE RADIO, OTHERS USE FIXED POINT TO TRAIN OR "INDUCTIVE CARRIER" SYSTEM."

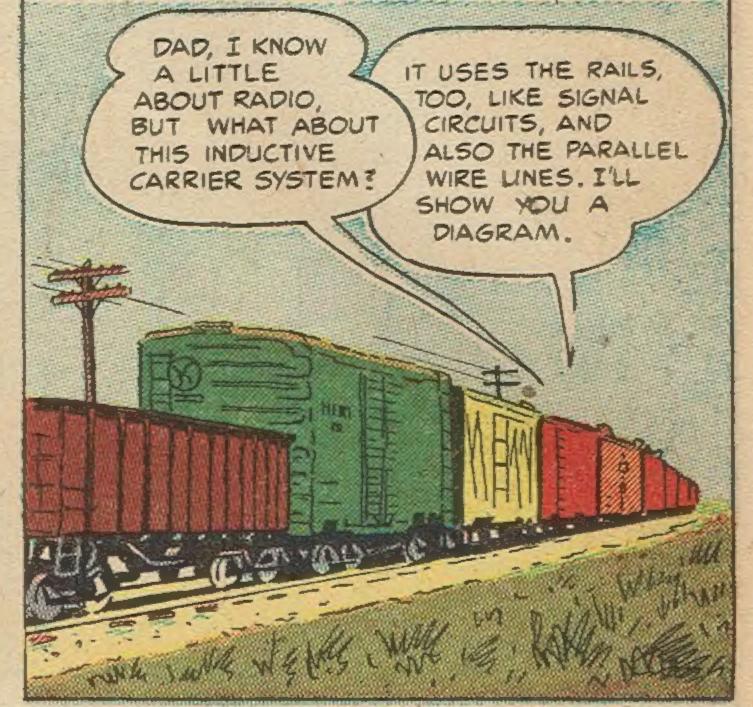


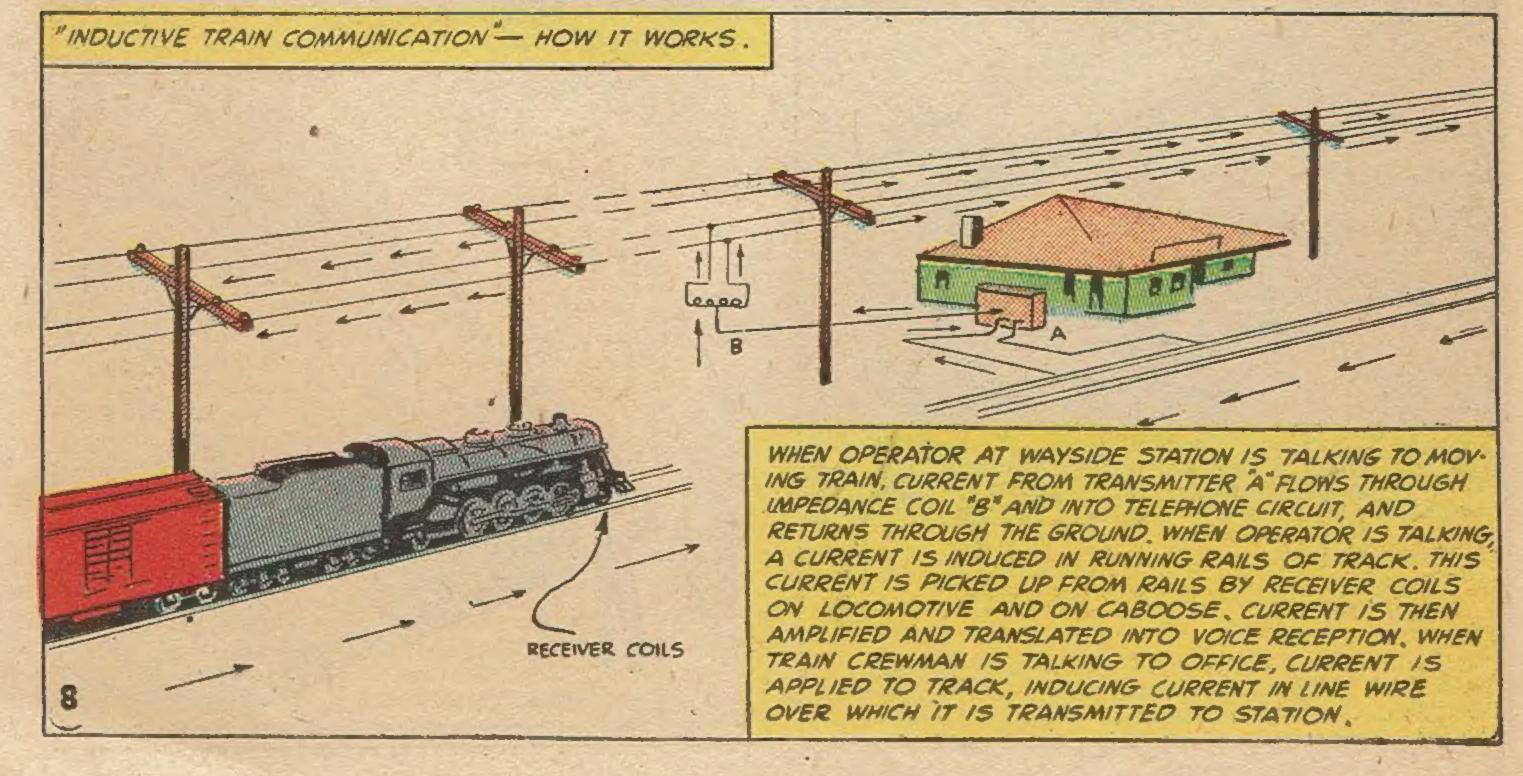


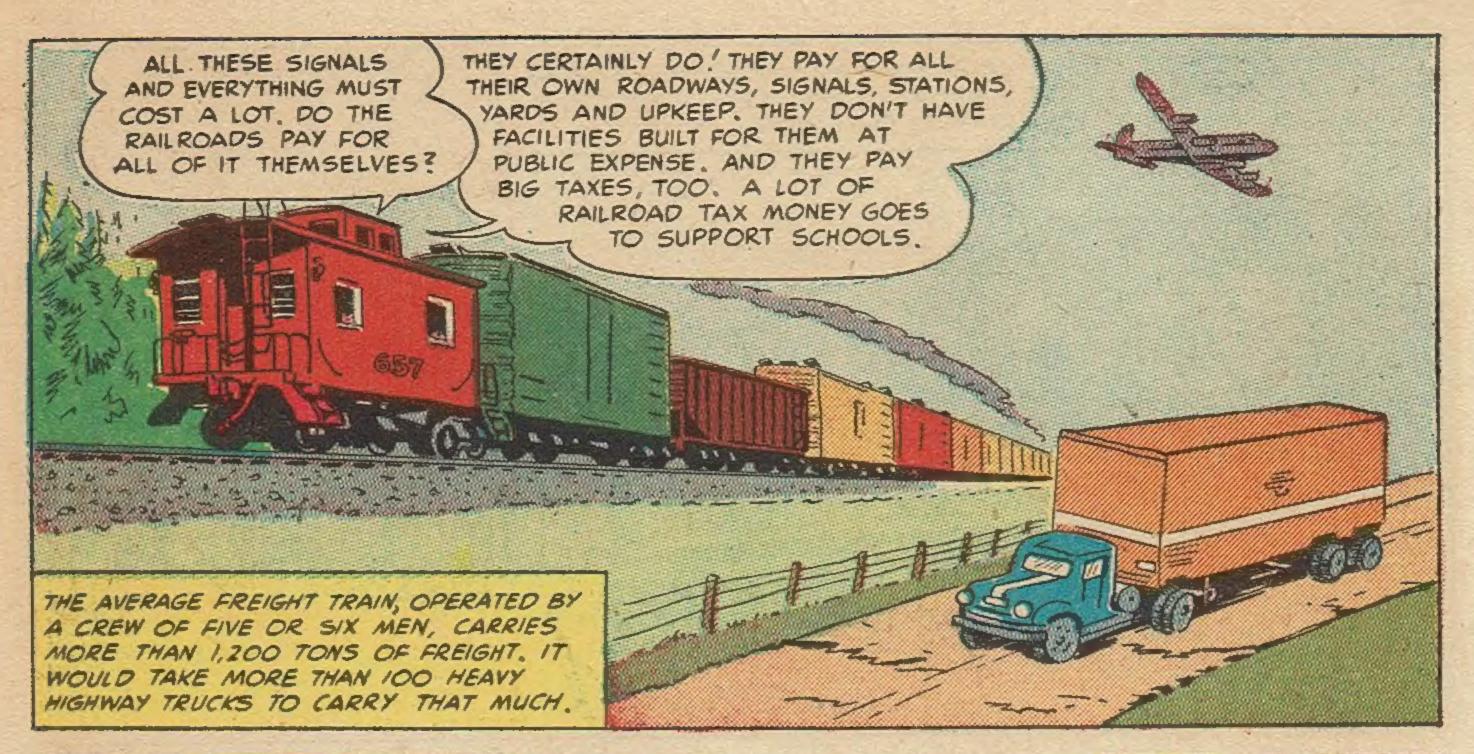
ON THIS RAILROAD'S RADIO - EQUIPPED DIVISIONS, WE USE THE INDUCTIVE CARRIER SYSTEM FOR OVER-THE-ROAD OPERATIONS."

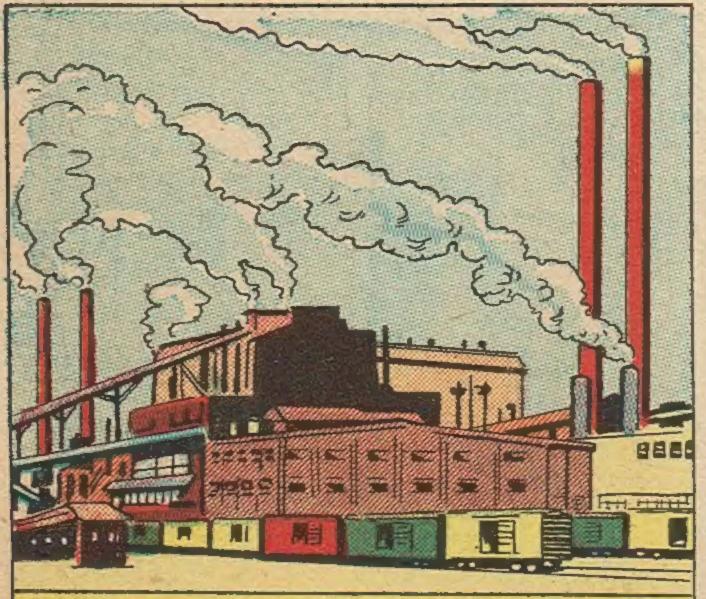
"ON SOME ROADS, SIGNAL INDICATIONS ARE REPEATED ON A PANEL INSIDE THE ENGINE CAB. THE SIGNALS, YOU KNOW, ARE GIVEN BY ELECTRIC CIRCUITS IN THE RAILS."







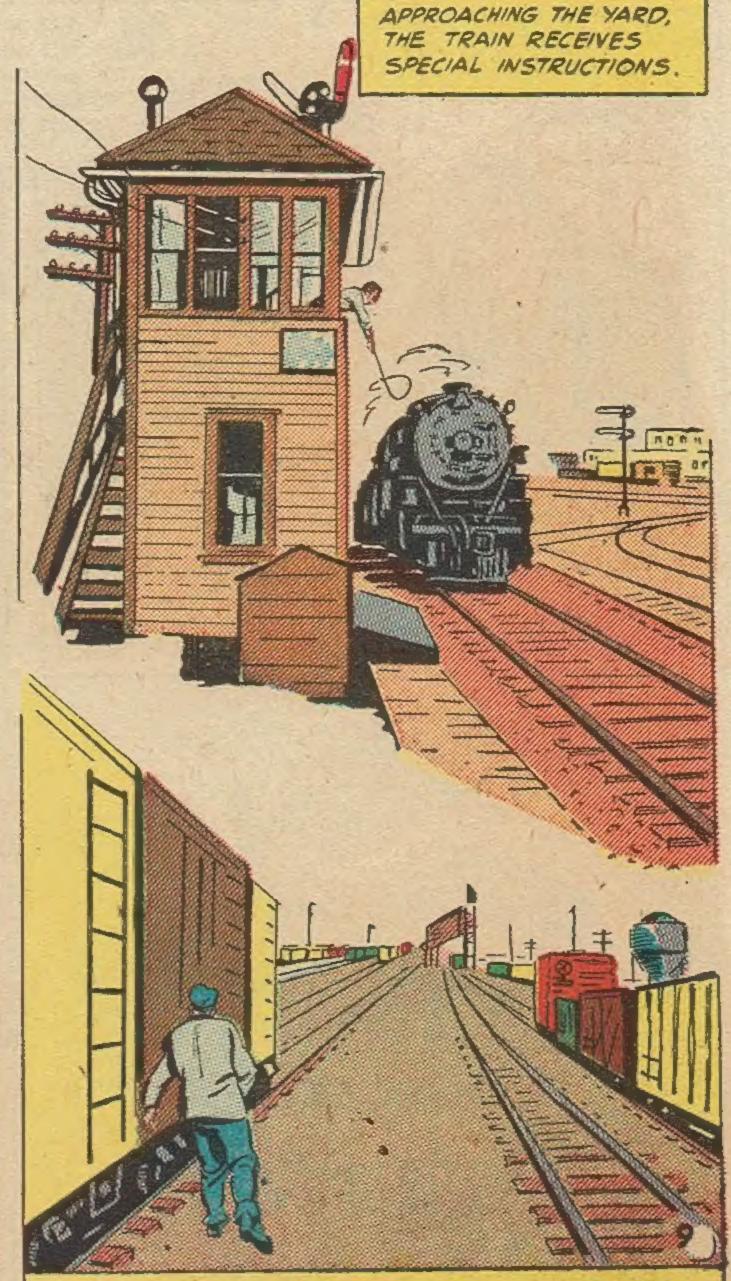




AS No. 70 NEARS RIVERSIDE, FACTORIES AND FREIGHT SIDINGS INCREASE ALONG THE RIGHT-OF-WAY. FREIGHT CARS CARRYING RAW MATERIALS AND FUEL ARE BEING UNLOADED; OTHER CARS ARE BEING FILLED WITH MANUFACTURED GOODS.

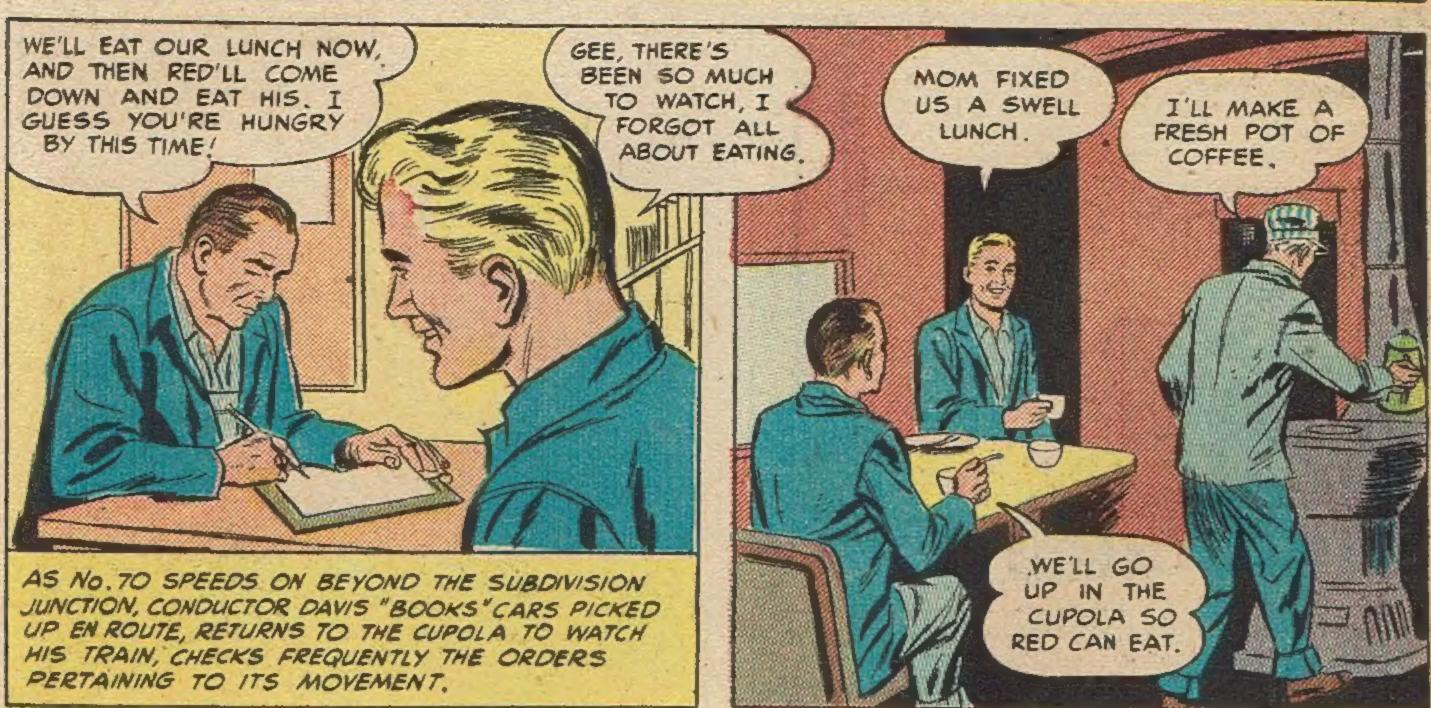


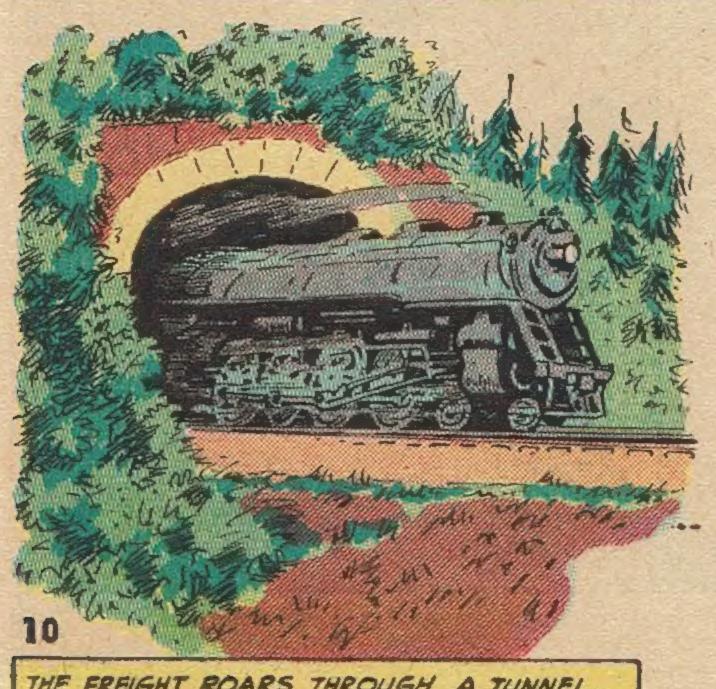
THE TRAIN SLOWS SPEED AND DRIFTS" INTO RIVERSIDE, AN INTERCHANGE POINT WITH TWO OTHER RAILROADS, AND HEADS FOR THE YARDS ON THE OTHER SIDE OF THE CITY.

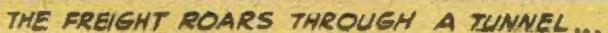


THE TRAIN STOPS. A YARD BRAKEMAN CUTS OFF THE ENGINE AND FIRST TEN CARS. LOCOMOTIVE. PUSHES THEM ONTO NO. 9 TRACK. TEN MINUTES FROM TIME SHE ARRIVES, NO. 70 IS ON HER WAY AGAIN.

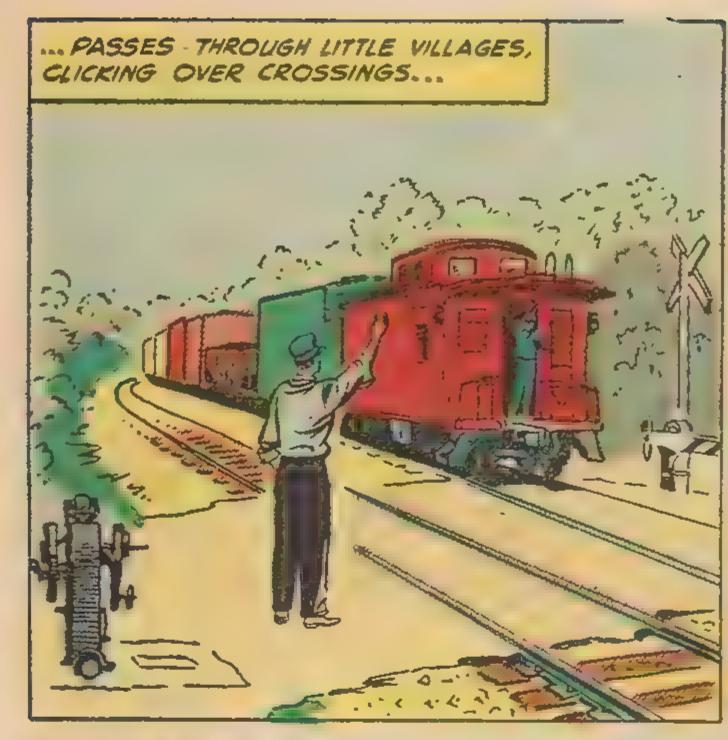






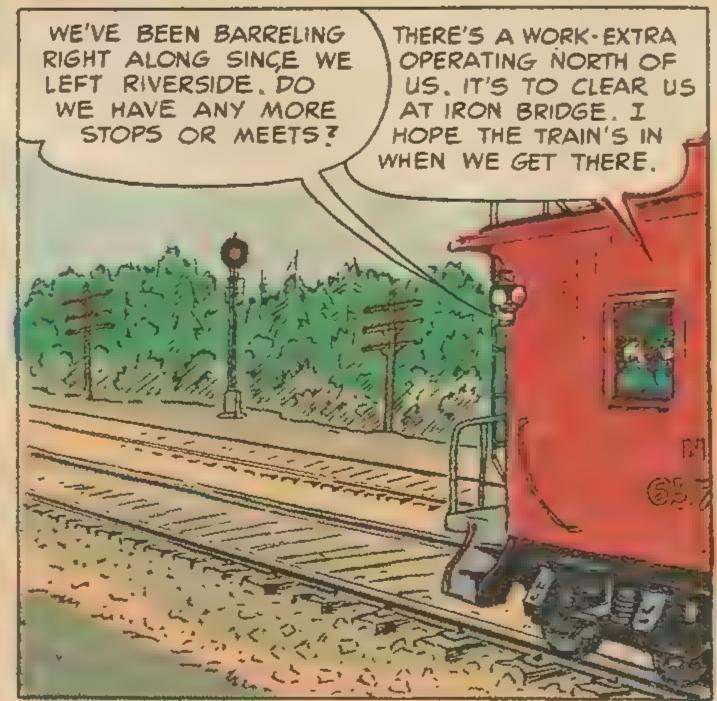


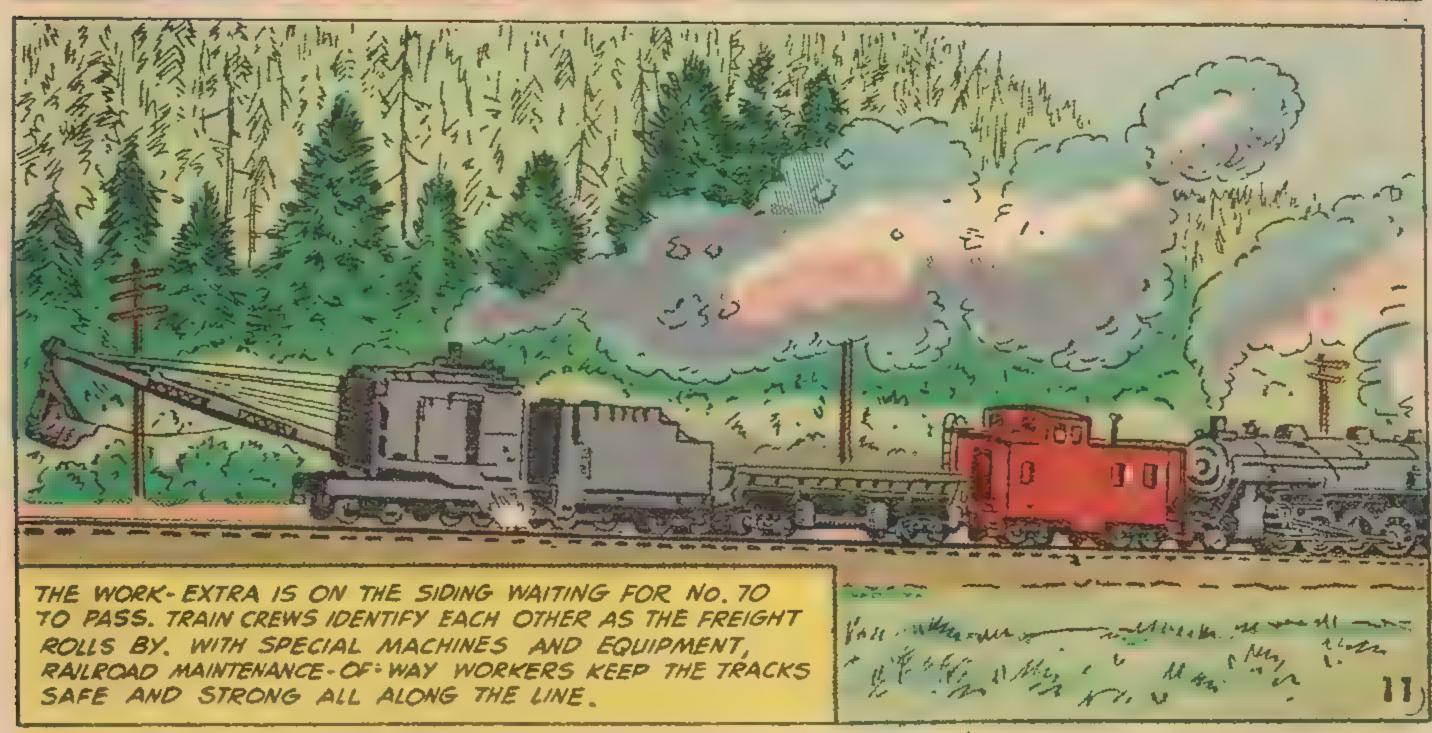


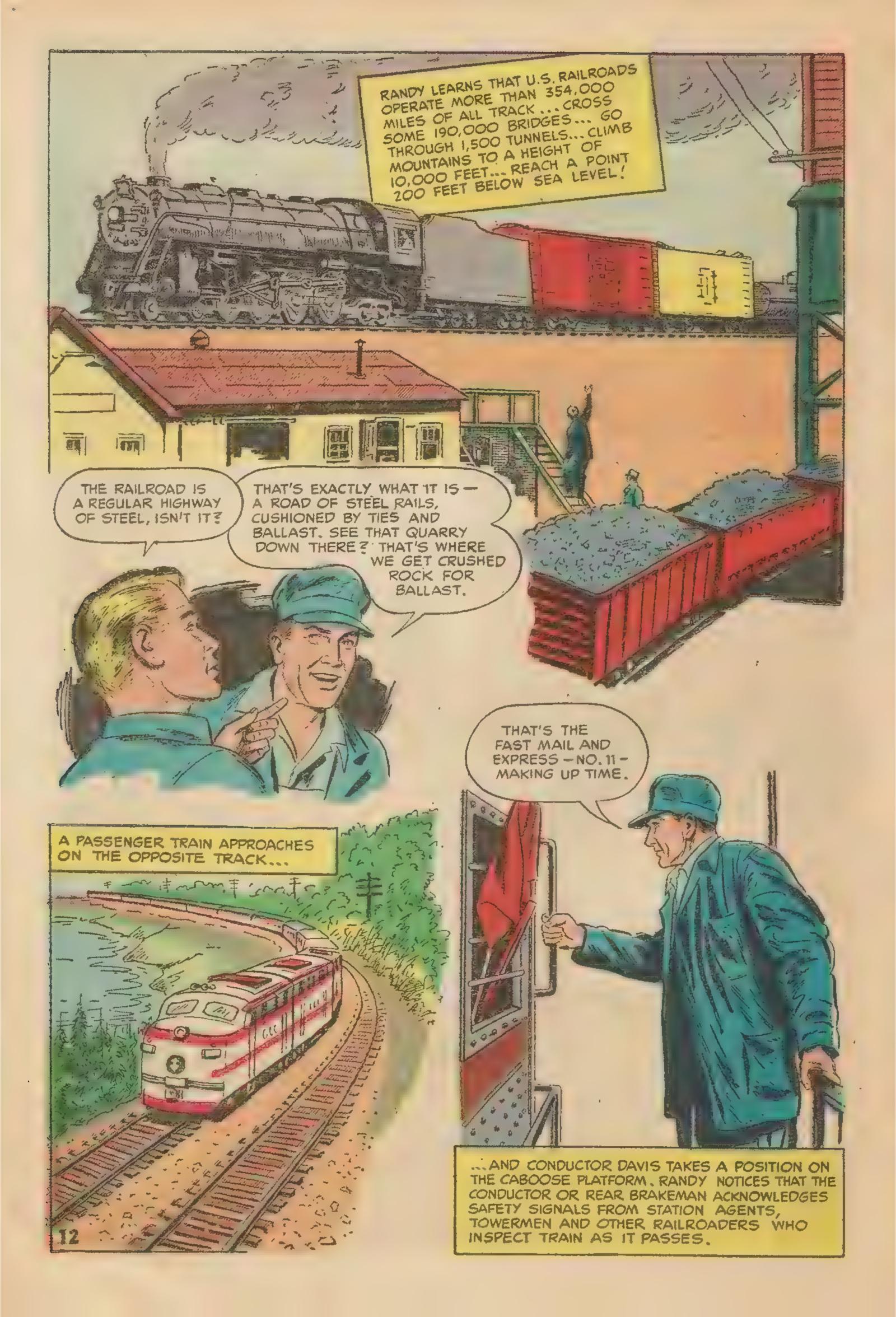






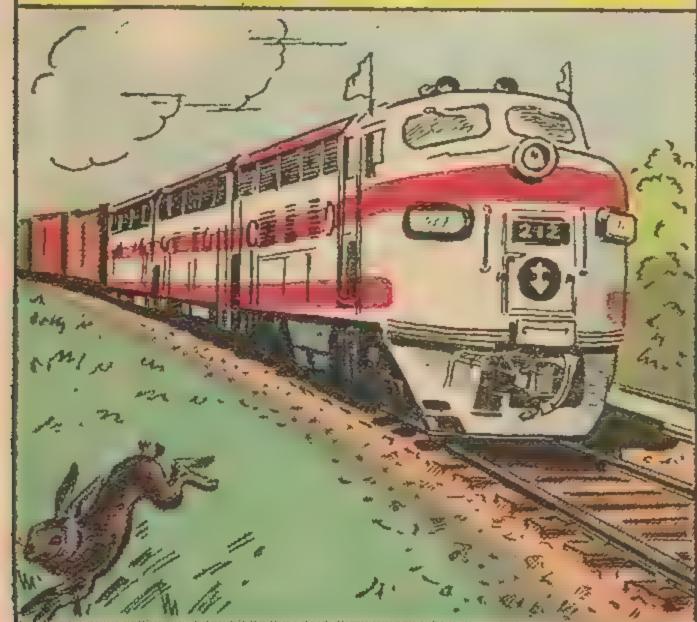




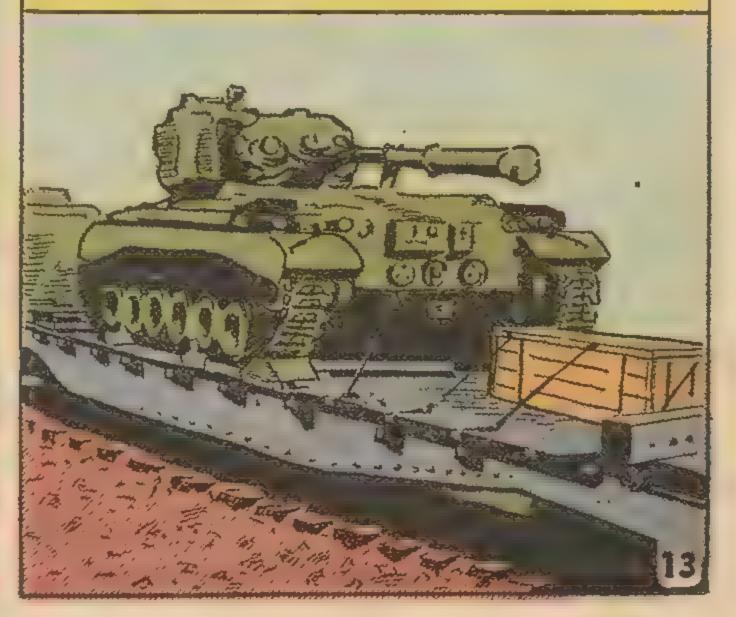


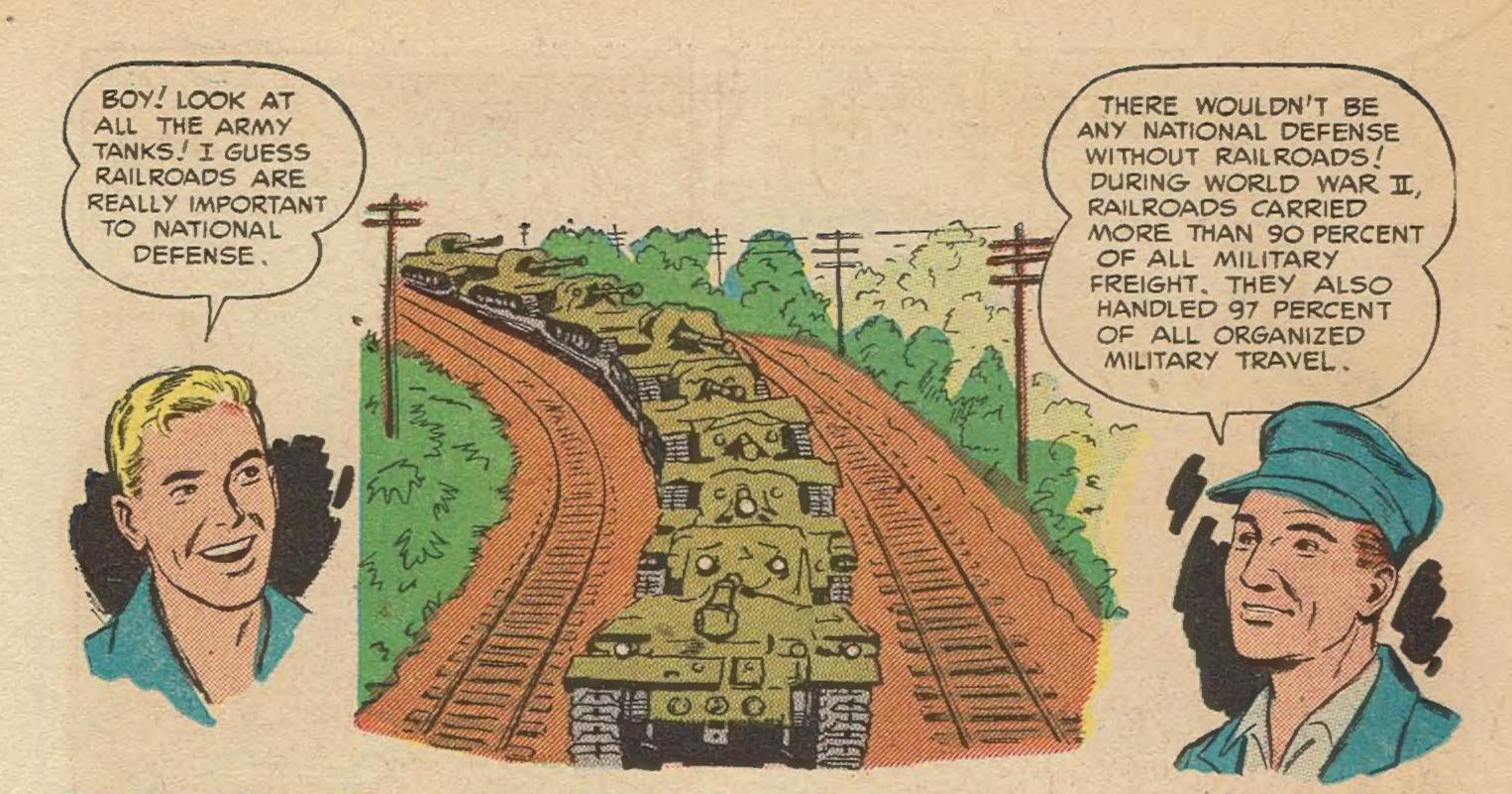


A FEW MINUTES LATER, ANOTHER FREIGHT COMES HIGHBALLING UP THE MAIN. THE BIG, THREE-UNIT DIESEL ROARS BY...

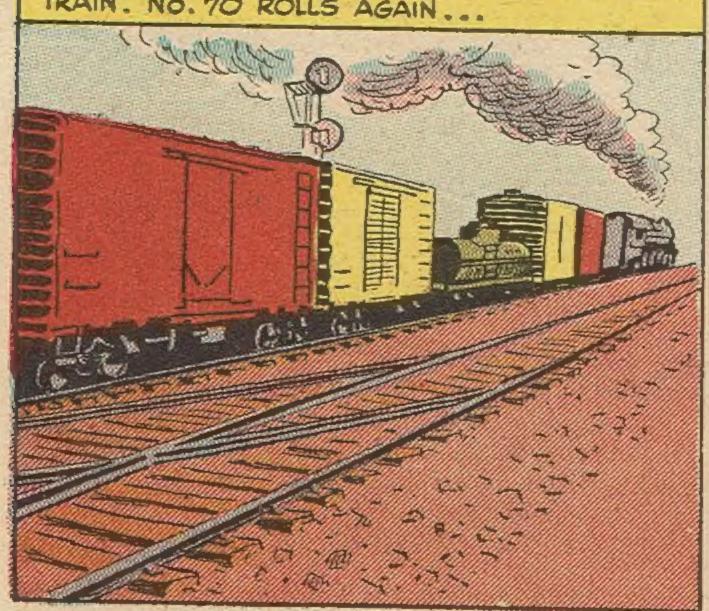


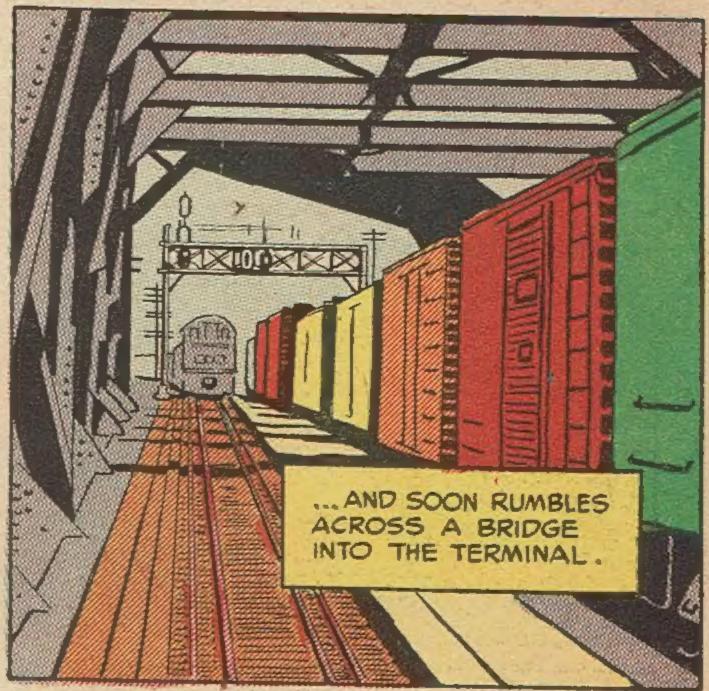
MENT BEING RUSHED TO A PORT OF EMBARKATION — A LONG, HEAVY TRAIN SPEEDING MATERIALS FOR THE DEFENSE OF AMERICA.

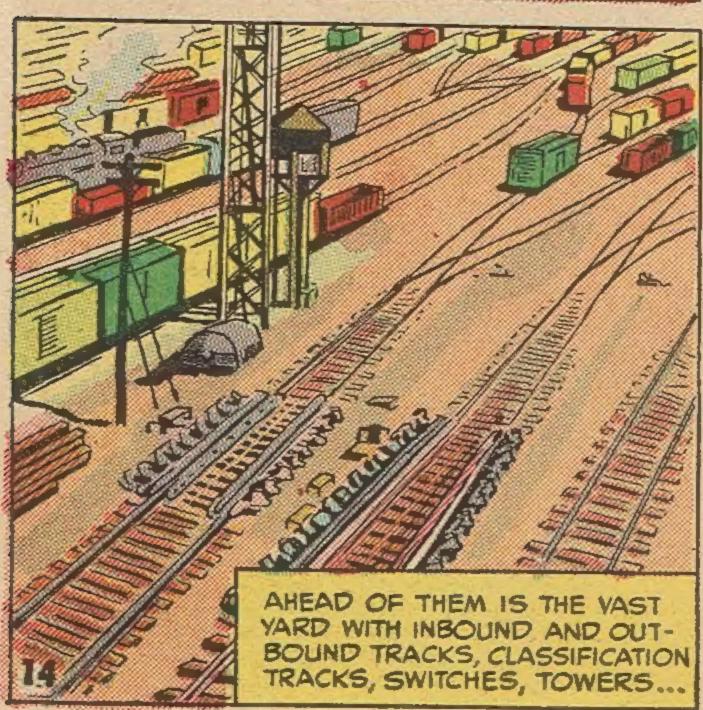




THE CABOOSE WHIZZES BY. "MARKERS OKAY!"
YELLS RED, MEANING THAT IT IS A COMPLETE
TRAIN. No. 70 ROLLS AGAIN...

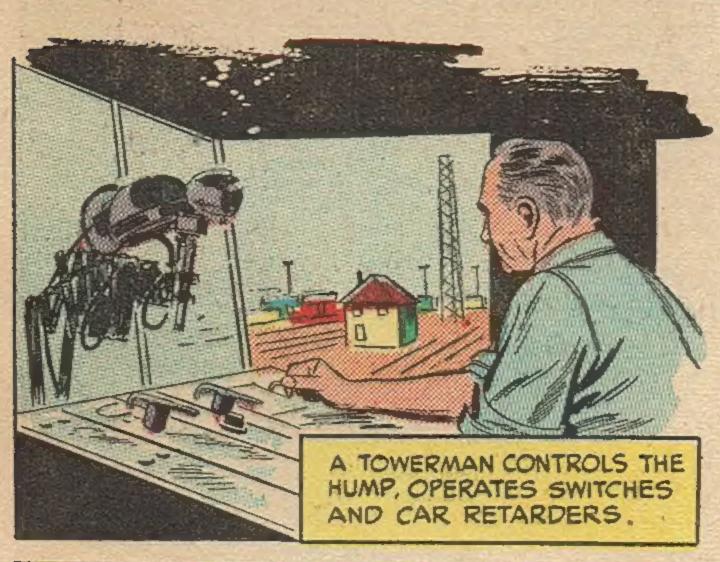


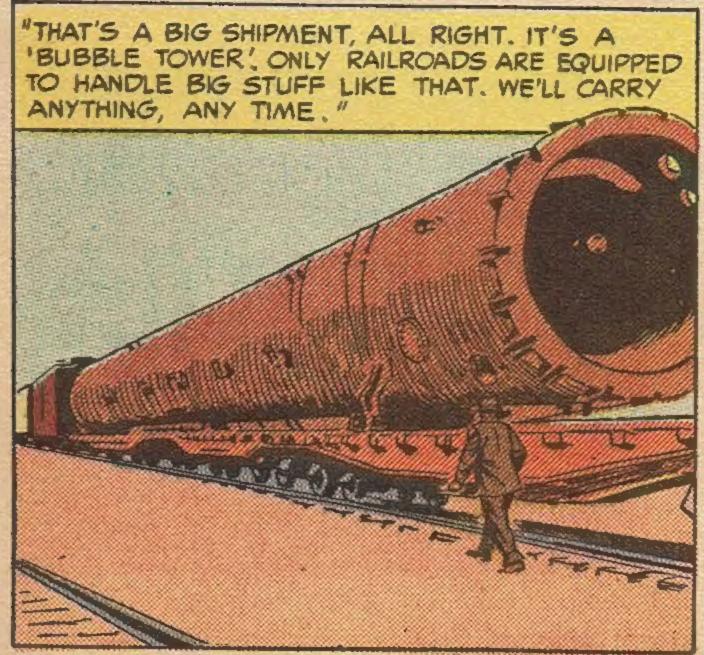




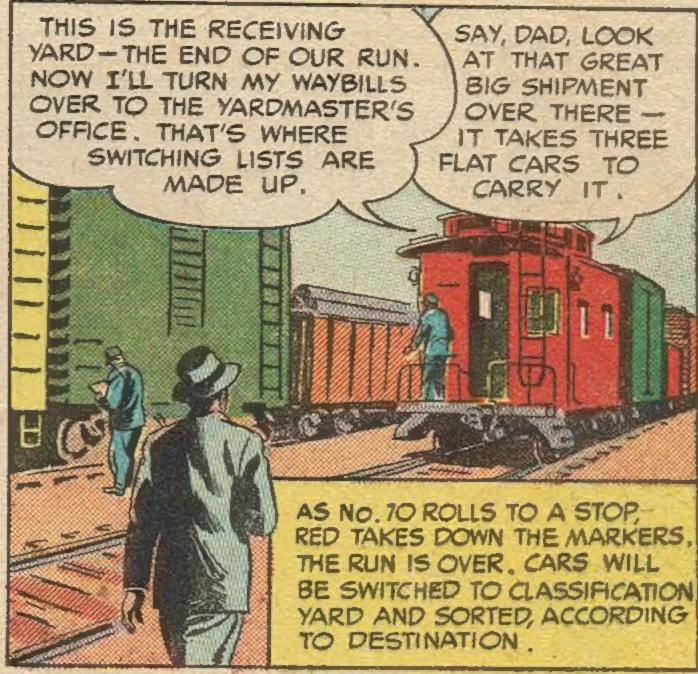






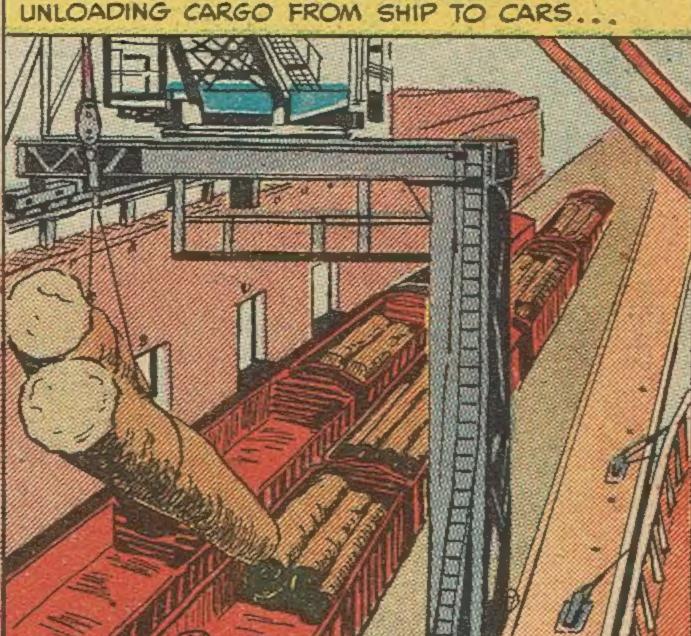












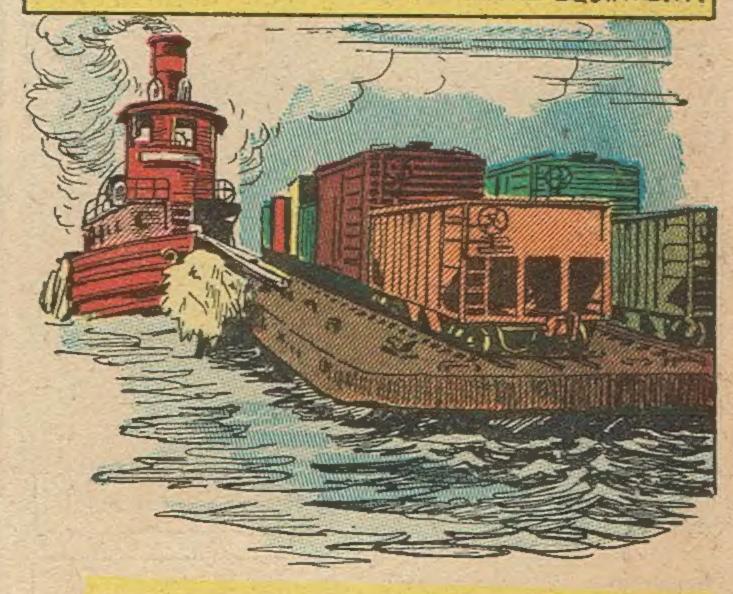
AT TIDEWATER TERMINAL HE OBSERVES RAILROAD

PORT FACILITIES - HUGE REVOLVING CRANES

THAT COAL
DUMPING MACHINE
EMPTIES A CAR
A MINUTE.

GEE! IT LIFTS
THEM UP AND
DUMPS THE COAL
DOWN A CHUTE
RIGHT INTO
THE SHIP.

AND LEARNS THAT AMERICAN RAILROADS OWN AND OPERATE MORE THAN 1,900 TUGS, CAR-FLOATS, FERRIES, LIGHTERS AND OTHER MARINE EQUIPMENT.



I'VE LEARNED ONE THING,
DAD, FOR SURE - RAILROADS REALLY DELIVER
THE GOODS! I CAN'T
THINK OF ANYTHING WE
BUY, WEAR, OR USE THAT
HASN'T BEEN CARRIED
BY TRAIN SOMEWHERE
ALONG THE LINE.

AND IT WOULD BE
HARD TO NAME ANY
PRODUCT THAT ISN'T
CHEAPER OR MORE
PLENTIFUL BECAUSE
OF RAIL TRANSPORTATION.
THAT'S WHY FREIGHT
TRAINS, QUITE AS MUCH
AS PASSENGER TRAINS,
PERFORM A PERSONAL

SERVICE FOR YOU AND EVERY OTHER AMERICAN.

Each of the various means of transportation has its value and its use. But basic among them, and essential to the operation of all the others, is the train of cars on tracks.

There is nothing else in existence, and nothing in sight, which can do what the rail-roads do—every day—in moving people and freight.

That's why railroads are essential to the nation's economy in time of peace—vital to its safety in time of war.

5-56-2000 M-GBP

